

## **Module 5: Illness and Injury**

### **Lesson 5-1**

#### **Medical Emergencies Objectives**

##### ***Objectives***

##### **Objectives Legend**

C=Cognitive A=Affective P=Psychomotor

1 = Knowledge level

2 = Application level

3 = Problem-solving level

##### **Cognitive Objectives**

At the completion of this lesson, the First Aid student will be able to:

- 5-1.1 Identify the person who complains of a medical problem. (C-1)
- 5-1.2 Describe the steps in providing first aid to a person who complains of a medical problem. (C-1)
- 5-1.3 Recognize the ill or injured person with a decreased level of responsiveness. (C-1)
- 5-1.4 Describe the steps in providing first aid to an ill or injured person with a decreased level of responsiveness. (C-1)
- 5-1.5 Recognize a person having a seizure. (C-1)
- 5-1.6 Describe the steps in providing first aid to a person with seizures. (C-1)
- 5-1.7 Recognize a person with medical problems resulting from exposure to cold. (C-1)
- 5-1.8 Describe the steps in providing first aid to a person with an exposure to cold. (C-1)
- 5-1.9 Recognize a person with medical problems resulting from exposure to heat. (C-1)
- 5-1.10 Describe the steps in providing first aid to a person with an exposure to heat. (C-1)

##### **Affective Objectives**

At the completion of this lesson, the First Aid student will be able to:

- 5-1.11 Demonstrate a caring attitude towards a person who complains of a medical problem. (A-3)
- 5-1.12 Place the interests of the person with a medical problem as the foremost consideration when making emergency care decisions. (A-3)

##### **Psychomotor Objective**

At the completion of this lesson, the First Aid student will be able to: 5-1.13 Demonstrate the steps in providing first aid to a person who complains of a medical problem. (P-1,2)

- 5-1.14 Demonstrate the steps in providing first aid to an ill or injured person with a decreased level of responsiveness. (P-1,2)
- 5-1.15 Demonstrate the steps in providing first aid to a person with seizures. (P-1,2)
- 5-1.16 Demonstrate the steps in providing first aid to a person with an exposure to cold/heat. (P-1,2)

## **Preparation**

### **Motivation:**

A person may complain of various medical problems. The First Aider must be prepared to provide appropriate first aid to persons with medical problems that they may encounter.

### **Prerequisites:**

Preparatory, Airway, Ill or injured person Assessment, and Circulation Modules

## **Materials**

### **AV Equipment:**

Utilize various audio-visual materials relating to first aid. The continuous development of new audio-visual materials relating to first aid requires careful review to determine which best meet the needs of the program. Materials should be edited to ensure that the objectives of these guidelines are met.

### **Equipment (Optional):**

Personal protective equipment, hot and cold packs, and a space blanket.

### **Recommended Minimum Time to Complete:**

See page 12 of Instructor's Course Guide

Utilize various audio-visual materials relating to first aid. The continuous development of new audio-visual materials relating to first aid requires careful review to determine which best meet the needs of the program. Materials should be edited to ensure that the objectives of these guidelines are met.

## **Presentation**

Declarative (What)

- I. General Medical Problems
  - A. Ill persons may request first aid for a variety of reasons.
  - B. The First Aider should assess each ill person to determine the signs and symptoms.
  - C. First aid is based on the ill person's signs and symptoms.
    - 1. Warning Signs and Symptoms when EMS should be called immediately.

- a. Chest Pain
  - b. Breathing difficulty or shortness of breath
  - c. Abdominal Pain
  - d. Decreased level of responsiveness
- D. Role of the First Aider
  - 1. Complete the First Aider assessment
    - a. Complete a scene assessment and use appropriate BSI equipment before initiating first aid.
    - b. Complete an initial assessment on all ill persons.
    - c. Assure that EMS is activated.
    - d. Complete the physical assessment (optional).
    - e. Complete on-going assessments.
  - 2. Comfort, calm, and reassure the ill person while awaiting EMS.
- II. Specific Medical Problems
  - A. Decreased level of responsiveness.
    - 1. A sudden or gradual decrease in the ill or injured person's level of responsiveness and understanding ranging from confusion to unresponsive.
    - 2. There are many reasons for ill or injured persons having a decreased level of responsiveness:
      - a. Heart Problems
      - b. Stroke
      - c. Poisoning - including drugs and alcohol
      - d. Low blood sugar or Diabetic problem
      - e. Fever
      - f. Head injury
      - g. Decreased levels of oxygen in the brain
      - h. Psychiatric conditions
      - i. Infections
    - 3. Support the ill or injured person; do not worry about determining the cause of the decreased level of responsiveness; maintain scene safety.
    - 4. The length of the decreased level of responsiveness may be brief or prolonged.
    - 5. Role of the First Aider:
      - a. Complete the First Aider assessment;
        - (1) Complete a scene assessment and use appropriate BSI equipment before initiating first aid.
        - (2) Complete an initial assessment on all ill or injured persons.
        - (3) Assure that EMS is activated.
        - (4) Complete the physical assessment (optional).
        - (5) Complete on-going assessments.
      - b. Comfort, calm, and reassure the ill or injured person while awaiting EMS.
        - (1) Assure an open airway.
        - (2) Place person in the recovery position if no possibility of spine trauma.
        - (3) Do not put anything in the ill or injured person's mouth.
    - 6. Relationship to airway management

- a. Often ill or injured persons with decreased level of responsiveness cannot protect their own airway.
  - b. The unresponsive, uninjured person should be placed in the recovery position.
- B. Seizures
  - 1. A sudden attack, usually related to nervous system failure.
  - 2. There are many types of seizures.
  - 3. There are many causes of seizures.
    - a. Chronic medical conditions
    - b. Fever
    - c. Infections
    - d. Poisoning including drugs and alcohol
    - e. Low blood sugar
    - f. Head injury
    - g. Decreased levels of oxygen
    - h. Brain tumors
    - i. Complications of pregnancy
    - j. Unknown causes
  - 4. Support the person; do not worry about determining the cause of the seizure.
  - 5. Some seizures produce violent muscle contractions called convulsions.
    - a. Most persons are unresponsive and may vomit during the convulsion.
    - b. Persons who have had a seizure are typically tired and sleep following the attack.
  - 6. Seizures are rarely life-threatening, but a serious emergency.
  - 7. The length of the seizure may be brief (less than 5 minutes) or prolonged.
  - 8. Role of the First Aider;
    - a. Complete the First Aider assessment.
      - (1) Complete a scene assessment and use appropriate BSI before initiating first aid.
      - (2) Complete an initial assessment on all ill persons.
      - (3) Assure that EMS is activated.
      - (4) Complete the physical assessment (optional).
      - (5) Complete on-going assessments.
    - b. Comfort, calm, and reassure the person while awaiting EMS.
      - (1) Protect the person from the environment.
      - (2) Protect modesty - ask bystanders to leave the area.
      - (3) Assure an open airway.
      - (4) Place person in the recovery position if no possibility of spine trauma.
      - (5) Never restrain the person.
      - (6) Do not put anything in the person's mouth.
      - (7) If the person is bluish following seizure, assure an open airway, assess breathing and ventilate if the person is not breathing.
      - (8) Report assessment findings to EMS.
      - (9) Observe and describe the seizure to EMS.(a) First Aider may be the only witness to seizure. This may help EMS determine the cause of seizure.

9. Relationship to airway management
  - a. Often person having a seizure will have significant oral secretions.
  - b. It is essential that these persons be placed in the recovery position when the convulsions have ended.
- C. Exposure to cold
  1. Generalized cold emergency
    - a. Contributing factors;
      - (1) Cold environment
      - (2) Age (very old/very young)
      - (3) Medical conditions
      - (4) Alcohol/drugs/poisons
    - b. Signs and symptoms of generalized hypothermia;
      - (1) Obvious exposure
      - (2) Non-obvious exposure
      - (3) Cool/cold skin temperature
      - (4) Shivering
      - (5) Decreasing level of responsiveness or motor function - relates to the seriousness of hypothermia.
        - (a) Poor coordination
        - (b) Memory disturbances/confusion
        - (c) Reduced or loss of touch sensation
        - (d) Mood changes
        - (e) Less communicative
        - (f) Dizziness
        - (g) Speech difficulty
      - (6) Poor judgment - person may actually remove clothing.
      - (7) Problems of joint/muscle stiffness.
  2. Role of the First Aider:
    - a. Complete the First Aider assessment.
      - (1) Complete a scene assessment and use appropriate BSI equipment before initiating first aid.
      - (2) Complete an initial assessment on all ill or injured persons.
      - (3) Assure that EMS is activated.
      - (4) Complete the physical assessment (optional)
      - (5) Complete on-going assessments.
    - b. Comfort, calm, and reassure the person while awaiting EMS.
      - (1) Assess pulses for 30-45 seconds before starting CPR.
      - (2) Remove the person from the cold environment.
      - (3) Protect the ill or injured person from further heat loss.
      - (4) Remove any wet clothing and cover the person with a blanket.
      - (5) Handle the person very gently.
      - (6) The person should not be given anything by mouth.
      - (7) Do not massage extremities.

#### D. Exposure to heat

1. Influencing factors:
  - a. Climate
    - (1) High ambient temperature reduces the body's ability to lose heat by radiation.
    - (2) High relative humidity reduces the body's ability to lose heat through evaporation.
  - b. Exercise and activity - can lose more than 1 liter of sweat per hour.
  - c. Age (very old/very young).
  - d. Pre-existing illness and/or conditions.
  - e. Drugs/medications.
2. Signs and symptoms
  - a. Muscular cramps
  - b. Weakness or exhaustion
  - c. Dizziness or faintness
  - d. Rapid heart rate
  - e. Decreased level of responsiveness.
3. Role of the First Aider:
  - a. Complete the First Aider assessment.
    - (1) Complete a scene size-up and use appropriate BSI equipment before initiating first aid.
    - (2) Complete an initial assessment on all ill or injured persons.
    - (3) Assure that EMS is activated.
    - (4) Complete the physical assessment (optional).
    - (5) Complete on-going assessments.
  - b. Comfort, calm, and reassure the person while awaiting EMS.
    - (1) Remove the person from the hot environment and place in a cool environment (air conditioned).
    - (2) Cool person by fanning, but may be ineffective in high humidity.
    - (3) Place in recovery position.

## Application

### Procedural (How)

1. Demonstrate the steps in providing first aid to a person with a general medical problem.
2. Demonstrate the steps in providing first aid to an ill or injured person with a decreased level of responsiveness.
3. Demonstrate the steps in providing first aid to a person with seizures.
4. Demonstrate the steps in providing first aid to a person exposed to cold.
5. Demonstrate the steps in providing first aid to a person exposed to heat.

### Contextual (When, Where, Why)

The First Aider will now be able to provide appropriate emergency care to persons with general and specific medical problems.

1. Demonstrate the steps in providing first aid to a person with a general medical problem.
2. Demonstrate the steps in providing first aid to an ill or injured person with a decreased level of responsiveness.
3. Demonstrate the steps in providing first aid to a person with seizures.
4. Demonstrate the steps in providing first aid to a person exposed to cold.
5. Demonstrate the steps in providing first aid to a person exposed to heat.

## **Student Activities**

### **Auditory (Hearing)**

1. The student should hear presentations of the signs, symptoms, and first aid for persons with general medical problems.
2. The student should hear presentations of the signs, symptoms, and first aid for ill or injured persons with decreased level of responsiveness.
3. The student should hear presentations of the signs, symptoms, and first aid for persons with seizures.
4. The student should hear presentations of the signs, symptoms, and first aid for persons exposed to cold.
5. The student should hear presentations of the signs, symptoms, and first aid for persons exposed to heat.

### **Visual (Seeing)**

1. The students should see visual representations of persons with general medical problems.
2. The students should see visual representations of ill or injured persons with an decreased level of responsiveness.
3. The students should see visual representations of persons with seizures.
4. The students should see visual representations of persons exposed to cold.
5. The students should see visual representations of persons exposed to heat.

### **Kinesthetic (Doing)**

1. The students should role play first aid of a person with a general medical problem.
2. The students should role play first aid of an ill or injured person with decreased level of responsiveness.
3. The students should role play first aid of a person with a seizure.
4. The students should role play first aid of a person exposed to cold.
5. The students should role play first aid of a person exposed to heat.

## **Instructor Activities**

Facilitate discussion and supervise practice.

Reinforce student progress in cognitive, affective, and psychomotor domains.

Redirect students having difficulty with content.

**Evaluation**

Evaluate the actions of First Aid students during role play, practice or other skill stations to determine their comprehension of the cognitive and affective objectives and reasonable proficiency with the psychomotor objectives.

**Remediation**

Identify students or groups of students who are having difficulty with this subject content.

**Enrichment**

Address unique student requirements or local area needs concerning this topic.